PRS67
CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) DRUG UTILIZATION: AN ANALYSIS WITH THE RAMQ DATABASE
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OBJECTIVES: The objectives of this study were to describe the COPD population and treatment patterns, to estimate treatment adherence, and to compare medication cost, in a real life setting, using the *Régie de l'assurance maladie du Québec* (RAMQ) database. **METHODS:** Patients who had a diagnosis of COPD (ICD-9 codes: 4910-4929, 4960-4969), or who received at least one script of a COPD medication from January 1st 2010 to January 31st 2013 were selected. Patient's characteristics, drug utilization patterns, adherence, and costs were analyzed. **RESULTS:** Among patients with a COPD diagnosis, 3,015 patients were treated with LABA (long-acting beta-agonists); 12,099 with LAAC (long-acting anticholinergics); and 11,029 with a fixed-combination of LABA/inhaled corticosteroids (ICS). A proportion of 26.1%, 23.6%, and 31.0% of LABA, LAAC, and LABA/ICS users, respectively, had a mixed diagnosis with asthma. More than 80% of patients on long-acting agent treatments used more than one medication in concomitance. The results showed a high usage of ICS in concomitance with LAAC (20.3% in free-combination; 53.2% in fixed-combination). In incident users (no COPD medication in the previous year) treated with triple therapy LAAC+LABA/ICS (n=125), average time to triple therapy was less than six months. The compliance, estimated over up to 1-year period, of long-acting COPD medications given more than once daily was 41.4%. The switch to once-daily medication was associated with a compliance of 61.4%. The compliance of the medications used before the switch to once-daily medication was 30.5%. The persistence of long-acting COPD medications given more than once daily was 72.3% at 6 months. At 6 months, the persistence of once-daily medication was 76.7%. The mean monthly cost per medication was CDN$46.65 (SD=39.21) for LABA users, CDN$63.14 (SD=121.79) for LAAC users, and CDN$96.20 (SD=162.43) for LABA/ICS users. **CONCLUSIONS:** Medication given once daily was associated with a higher level of treatment compliance.

PRS68
PHARMACOECONOMIC CONSIDERATIONS FOR ALLERGEN SPECIFIC IMMUNOTHERAPY IN A GEOPARDIZED REIMBURSEMENT SITUATION: THE ITALIAN CASE
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OBJECTIVES: Allergic rhinoconjuntivitis is a global health problem, and many studies have shown an important increase in the disease prevalence in the last 20 years. Allergen specific immunotherapy (SIT) is the only available treatment for the underlying cause of the disease. At present, few economic evaluations are available for Italy. The present study is focused on the cost effectiveness of SIT in Italy, considering the fragmented reimbursement policies in different Regions of the Country. **METHODS:** A review of the literature on the pharmaco-economy of immunotherapy for allergic rhinoconjuntivitis with a special focus on Italy (costs taken from Italian formularies, tariffs and Diagnosis Related Groups, or DRG). Reimbursement values were taken from official regional resolutions **RESULTS:** Treatment with SIT reduced by 38% symptomatic drugs consumption (whose costs are ranging from € 0.1 to € 0.5 per unit). Moreover, SIT reduced by 30% symptoms intensity (impacting on GPs and specialists visits, whose cost are ranging from € 13 to € 18, respectively) and by 20% the development of allergic asthma (which implies € 190 for one day of hospitalization). There are wide differences in SIT reimbursement across Italian Regions, ranging from 100% in 3, to various level of copayment in 7, down to no reimbursement in 10. **CONCLUSIONS:** Overall, these data support the favorable impact of SIT on the medium-long term in front of a relative cost increase in the short term. This benefit is still not fully recognized in Italy where differences persist across regions in the access to SIT reimbursement.

PRS69
IMPACT, IN REAL LIFE CONDITIONS, OF THE USE OF A PURIFIER SPRAY ON ALLERGY CARE IN DUST MITE ALLERGIC SUBJECTS
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OBJECTIVES: The study has been set-up in order to evaluate in real life conditions the perceived efficacy of a spray containing essential oils on allergy-related-symptoms, day-sleepiness and QoL of allergic subjects. **METHODS:** Women-and-men with a known history of dust mite allergy were recruited in the study. They were asked to use in their house twice a day, the purifier spray for a period of 28days. The perceived efficacy was evaluated via self-validated questionnaires on allergy symptoms (discomfort generated by sneezing- itchy eyes-stuffy nose-nasal flow-tiredness-ear itching), on daytime-sleepiness (Epworth-Sleepiness-Scale) and on QoL (SF12). For the study outcomes, each subject was evaluated at inclusion, at day7 and day28. The satisfaction through the CSQ8-questionnaire was also evaluated at day28. **RESULTS:** 42 subjects, with an history of allergy of 21.4±11.2years, were included. They present a symptom-score at inclusion of 6.63±3.5 which was significantly reduced after 7 days of spray use with a value of 3.87±2.4 (p<0,0001). The improvement was confirmed at day28:1.85±1.6-(p<0,0001). The data were also evaluated according to symptom severity, *i.e.*low, moderate or severe. For the moderate or severe subpopulations, a significant improvement was observed on the symptoms score since 7days of spray use. Moreover, for the subjects showing severe symptoms, an improvement was also observed on daytime-sleepiness (p<0,05) with the Epworth score going from 9.18 ±7.1 to 4.75 ±3.9 after 28days, and on the SF12 mental dimension score (42.8 vs 48.2-p<0,04) For the studied population the overall satisfaction evaluated was above 75% after 28days. **CONCLUSIONS:** By using self-validated-questionnaires, the evaluation shows the interest of the use of the essential oils spray in allergy care for dust mite allergic subjects. The improvement on symptoms is observed whatever the severity of symptoms is, and it is noticeable that for subjects showing severe symptoms, the quality of life and the sleep is also improved.

RESEARCH POSTER PRESENTATIONS – SESSION IV

RESEARCH ON METHODS STUDIES

RESEARCH ON METHODS - Clinical Outcomes Methods

PRM1
COMPARATIVE ASSESSMENT OF HEALTH IMPACT OF PREVENTION FOR 9 DIFFERENT CANCERS
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OBJECTIVES: We conducted this study to estimate the saving of loss-of-QALE (quality-adjusted life expectancy) for 9 different cancers and validated them with estimation of EYLL (expected years of life loss) plus expected years of living with disability (EYLD). **METHODS:** 395,330 patients with pathologically verified cancer registered in the National Cancer Registry in Taiwan between 1998 and 2007 were used to estimate the survival functions and extrapolate to lifetime through a semi-parametric method. EYLL for cancer was calculated by subtracting the life expectancy of the cancer cohort from that of the age-and sex-matched general population. A convenience sample of 6,189 measurements of EQ-5D was collected for utility values and proportions of functional disability to estimate their QALE and EYLD. The loss of QALE for these patients was calculated by assuming a uniform utility of one for the age- and gender- matched reference subjects simulated from the hazard functions of vital statistics, and subtracting the QALE of these cancer cohorts. We also estimated the lifetime risks for different cancers with Cumulative incidence rates (CIR_{20-79}) and multiplied with loss-of-QALE to obtain the expected impact. **RESULTS:** EYLL plus EYLD were similar to loss-of-QALE. Male patients with esophageal cancer suffered the highest loss-of-QALE of 18.37 QALY (quality-adjusted life year), equivalent to 18.19 years of EYLL plus EYLD; those of female patients with lung cancer were 16.57 QALY and 17.1 years, respectively. After multiplied with the lifetime risk, liver cancer in male and breast cancer in female were expected to have the highest impact, or loss of 1.10-1.11 and 0.58-0.65 QALY or life-years, respectively. **CONCLUSIONS:** Estimated EYLL plus EYLD are close to loss-of-QALE and both can be used for measuring impact of cancer prevention. Simultaneous consideration of lifetime risk would provide a more accurate estimate for comparative risk assessment.

PRM2
EVIDENCE-BASED PRESCRIBING: USING EXISTING DATA ON BENEFITS AND HARMS TO CHOOSE AMONG MULTIPLE DRUGS
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OBJECTIVES: Even in cases where comparative clinical data exist, decision-makers often struggle to weigh the relative benefits and harms of multiple drugs. We present the potential benefit of combining network meta-analysis (NMA) with multi-criteria decision analysis (MCDA) in order to formalize the incorporation of clinical evidence and qualitative preferences into prescribing decisions. **METHODS:** Using a systematic review and NMA of cholesterol-lowering statins as a case study, we compared the absolute risk of mortality, coronary and cerebrovascular events, myalgia, creatine kinase and transaminase elevations, and discontinuations due to adverse events associated with atorvastatin, fluvastatin, lovastatin, pravastatin, rosuvastatin, and simvastatin. We applied a structured benefit-risk model that allowed evidence on multiple outcomes to be combined using qualitative preferences, assuming that the effect of statins on preventing mortality was more important than either major coronary or cerebrovascular events, which were in turn more important than any one of the harm outcomes. **RESULTS:** There were 184 randomized controlled trials of statins including 260,630 individuals. Our previous NMA found statistically detectable differences among individual statins in terms of both benefit and harm outcomes. When all outcomes were combined using MCDA, fluvastatin had a considerable probability of both being the best (41%) and worst (12%) statin, reflecting the uncertainty in its evidence base. In contrast, simvastatin had a high probability of better ranks (36%) with a negligible probability of ranking worst (~1%). **CONCLUSIONS:** Clinical evidence can be combined with qualitative preferences at point-of-care settings when making prescribing decisions. The combination of NMA with MCDA holds the promise to introduce more transparency to the decision-making process and potentially increase the relevance and informative value of existing evidence for prescribing decisions. Adopting such an approach for cholesterol-lowering therapy suggests that simvastatin may potentially have the most favorable benefit-harm profile among statins.

PRM3
A COMPARISON OF 3 ASSESSMENTS IN THE TREATMENT OF ROSACEA IN THE CONTEXT OF A COMPARATIVE EFFECTIVENESS STUDY
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OBJECTIVES: A comparative crossover study was conducted to assess the efficacy of brimonidine gel 0.33% (BG) vs azelaic acid gel 15% (AG) for the treatment of persistent facial erythema of rosacea using three assessments: clinician's erythema assessment (CEA), patient self-assessment (PSA), and chromameter instrumentation. **METHODS:** This was a multicenter, randomized, controlled, double-masked